

2011-2012 Weekly Field Reports

Copacabana, King George Island

Volume 4
November 7, 2011

Science Report:

1. Penguins: The Adélie penguin censuses of occupied nests were completed at Copa on Monday (11/7) and at Point Thomas on Wednesday (11/9). Totals were 2864 and 5149 breeding pairs, respectively, very similar to last year's counts, which were the highest in several years. The numbers this year may have been even higher, given the potential losses due to heavy snow that buried many nests the previous week. High population counts are usually an indication of good over-winter survival & breeding condition upon arrival at the colonies.

To determine the degree of band loss that occurs for each of the two types of bands we use, 100 male Adélie penguins were implanted with microchip transponders this week, and 50 of those were banded with either an aluminum or stainless steel flipper band. Since male Adélie penguins return to within a meter of their old nest sites every year, we hope to find these birds again next year if they survive the winter, and determine if they have lost a band or not by reading the implant (using a hand-held scanner). We are currently scanning 200 implanted birds from last year to assess losses and hope to have some preliminary data on this soon.

The gentoo penguin census of occupied nests was conducted on Tuesday (11/8) at Copa. No census was done at Point Thomas, as there are no longer any gentoo penguins breeding there. Preliminary numbers again show the highest counts for Copa we have ever had, with about 4886 occupied nests, which are only slightly higher than last year. However, last year was 14% higher than the previous highest year of 2008/09.

Gentoo penguin egg measurements were carried out at Copa on Monday (11/7). Both eggs at 100 nests were measured & weighed, to give us an indication of female condition at egg-laying. Egg volumes and weights were similar to or slightly above the 25-year means for the egg size indicating a fairly normal winter period for Gentoos at Copa.

2. Skuas: Regular checks of Copa Skua breeding territories continue and most of the territories are now occupied; we are now waiting for the eggs to be laid. The first Skua egg is usually found during the 3rd week of November. In addition to monitoring the Skua pairs for reproductive success, we also collect feces from their nesting territories throughout the breeding period, to determine what they are eating. These samples will be sent back to our colleague Dr. Nina Karnovsky, Pomona College, California to be examined for evidence of prey eaten by skuas (e.g., fish otoliths, squid beaks, krill carapaces), which can be used to determine annual diets for these birds.



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The first of the regular mid-week Point Thomas Skua checks was done on Wednesday (11/9). These will be done throughout the season, as weather & work allow, in addition to the regular weekend checks. Most of the territories have a least one member of the pair present, & the majority of pairs have both member returning again to their territories. Brown Skua pairs that hold penguin feeding territories are all back and defending their colonies, and most of them are the same pairs as last year.

3. Sheathbills/Giant Petrels: The one banded sheathbill, “Rasta” that has bred at Copa in the past, is still around & has been seen with an unbanded female, both in the penguin colony & at his old breeding cavity on Copa Rock. We hope this is an indication that they may breed this year, although last year “Rasta” and his unbanded partner made no apparent breeding attempts.

The first giant petrel egg was seen on Wednesday (11/9) at a new nest site. Giant petrels lay only one egg, which they then incubate for almost 2 months. The chicks will hatch in early January and, after a prolonged chick-rearing period, will finally fledge in late April or May, long after we leave. Juvenile giant petrels remain at sea, feeding & circumnavigating the southern oceans, for at least 2-3 years, before they are seen again at their breeding grounds. The age at first breeding is usually 5-7 years old. We have many known-age breeders at Copa that were banded as chicks many years ago. It is thought that giant petrels may live as long as 50-60 years.

4. Whales & Seals: Two humpback whales were seen on Wednesday (11/9), diving & apparently feeding at the mouth of the bay.

Once again there were no sightings of any leopard seals. Our weekly seal census only included the beaches at Copa, since we were unable to go to Pt. Thomas this weekend, due to weather. All that were counted were 5 elephant seals (one a weaned (young of the year)). On Wednesday (11/9), during our mid-week trip to Pt. Thomas, 2 female elephant seals with pups were seen on the beach there, with a large “harem bull” in attendance; also a female Weddell seal & her older pup that have been in the area, were seen again.

Camp Activities:

The last of the gutters, new ones we brought in with us, were cut to size & put up on Thursday (11/10). This completes our water-collection system; and just in time, as we’ve had wet weather since, filling up the water barrels to the tops.

Weekly Weather:

Temperatures have been mostly above freezing all week, with several days near 40 degrees F, although these have also been windy, so the wind chill effect has been considerably lower.



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The first three days of the week were mild & sunny, with little wind, allowing us to catch up on much of our work that had been put off due to bad weather. Saturday (11/12) & Sunday (11/13) had high winds, with gusts topping 60 & 50 mph, respectively, and rain, restricting our work outside to only the absolutely necessary. On Saturday (11/12), the barometer dropped to 957 mb, the lowest reading yet.

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